WHAT IS CLAIMED IS:

1. A method for registration of first and second images out of registration, the method comprising the steps of:

(a) making the edges in the first and second images more prominent;

(b) thresholding the first and second images from the previous step using a threshold for which N percent of the pixels of each of the first and second images are over the threshold;

(c) reducing the resolution of the first and second images from the previous step; and

(d) registering the first and second images of reduced resolution from the previous step.

2. The method of claim 1, further comprising the step of blurring the first and second images from the thresholding step.

3. The method of claim 2, wherein the blurring step comprises filtering each of the first and second images from the thresholding step such that each pixel therein is thickened by a predetermined number of pixels in a square array that extends the predetermined number of pixels in all four directions from a central pixel.

4. The method of claim 1, further comprising the step of increasing the resolution of the registered first and second images from the registering step.

5. The method of claim 1, wherein step (a) comprises filtering the first and second images with an edge-enhancement filter.

6. The method of claim 1, wherein N, the percentage of pixels of each of the first and second images which are over the threshold is in the range of 70-80 percent.

1   7. The method of claim 6, wherein N, the percentage of pixels of each

2 of the first and second images which are over the threshold is 80 percent.

1   8. The method of claim 1, wherein step (b) further comprises choosing

2 N automatically by computing a histogram of pixel intensities and setting the

3 threshold for which N percent are over the threshold for a predetermined value of N.

1   9. The method of claim 1, wherein step (c) comprises reducing the

2 resolution of each of the first and second images from the previous step by a factor

3 used to partition each of the first and second images from the previous step into square

4 blocks of pixels and replacing each square with the sum of the pixel values.

1   10. The method of claim 1, wherein step (d) comprises using a

2 normalized correlation as a criteria for registering the first and second images from the

3 previous step.

1   11. The method of claim 1, wherein the registering of step (d) is done

2 using a Fourier technique.

1   12. A program storage device readable by machine, tangibly

2 embodying a program of instructions executable by machine to perform method steps

3 for registration of first and second images out of registration, the method comprising

4 the steps of:

5   (a) making the edges in the first and second images more prominent;

6   (b) thresholding the first and second images from the previous step

7 using a threshold for which N percent of the pixels of each of the first and second

8 images are over the threshold;

9   (c) reducing the resolution of the first and second images from the

10   previous step; and

11   (d) registering the first and second images of reduced resolution from

12   the previous step.

1   13. The program storage device of claim 12, further comprising the

2   step of blurring the first and second images from the thresholding step.

1   14. The program storage device of claim 13, wherein the blurring step

2   comprises filtering each of the first and second images from the thresholding step such

3   that each pixel therein is thickened by a predetermined number of pixels in a square

4   array that extends the predetermined number of pixels in all four directions from a

5   central pixel.

1   15. The program storage device of claim 12, further comprising the

2   step of increasing the resolution of the registered first and second images from the

3   registering step.

1   16. The program storage device of claim 12, wherein step (a)

2   comprises filtering the first and second images with an edge-enhancement filter.

1   17. The program storage device of claim 12, wherein N, the percentage

2   of pixels of each of the first and second images which are over the threshold is in the

3   range of 70-80 percent.

1   18. The program storage device of claim 17, wherein N, the percentage

2   of pixels of each of the first and second images which are over the threshold is 80

3   percent.

19. The program storage device of claim 12, wherein step (b) further comprises choosing N automatically by computing a histogram of pixel intensities and setting the threshold for which N percent are over the threshold for a predetermined value of N.

20. The program storage device of claim 12, wherein step (c) comprises reducing the resolution of each of the first and second images from the previous step by a factor used to partition each of the first and second images from the previous step into square blocks of pixels and replacing each square with the sum of the pixel values.

21. The program storage device of claim 12, wherein step (d) comprises using a normalized correlation as a criteria for registering the first and second images from the previous step.

22. The program storage device of claim 12, wherein the registering of step (d) is done using a Fourier technique.

23. A computer program product embodied in a computer-readable medium for implementing registration of first and second images out of registration, the computer program product comprising:

(a) computer readable code means for making the edges in the first and second images more prominent;

(b) computer readable code means for thresholding the first and second images from the previous step using a threshold for which N percent of the pixels of each of the first and second images are over the threshold;

(c) computer readable code means for reducing the resolution of the first and second images from the previous step; and

11   (d) computer readable code means for registering the first and second

12   images of reduced resolution from the previous step.

1   24. The computer program product of claim 23, further comprising

2   computer readable code means for blurring the first and second images from the

3   thresholding.

1   25. The computer program product of claim 23, further comprising

2   computer readable code means for increasing the resolution of the registered first and

3   second images from the registering.

1   26. The computer program product of claim 1, wherein (b) further

2   comprises computer readable code means for choosing N automatically by computing

3   a histogram of pixel intensities and setting the threshold for which N percent are over

4   the threshold for a predetermined value of N.

1   27. The computer program product of claim 1, wherein (c) comprises

2   computer readable code means for reducing the resolution of each of the first and

3   second images from the previous step by a factor used to partition each of the first and

4   second images from the previous step into square blocks of pixels and replacing each

5   square with the sum of the pixel values.

1   28. The computer program product of claim 1, wherein (d) comprises

2   computer readable code means for using a normalized correlation as a criteria for

3   registering the first and second images from the previous step.